

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A deformable mirror comprising:  
a reflecting surface disposed on a diaphragm;  
a diaphragm carrier that supports the diaphragm, wherein the diaphragm carrier has a circular perimeter and a countersunk portion that defines a non-circular, pressurizable rear surface of the diaphragm; and  
wherein the rear surface is an approximately rectangular surface, an approximately oval surface, or an approximately elliptical surface, and wherein the rear surface is configured to enable variable aspherical deformation of the reflecting surface.
2. (Original) The deformable mirror of claim 1, wherein the rear surface is an approximately rectangular surface.
3. (Original) The deformable mirror of claim 1, wherein the rear surface is an approximately oval surface.
4. (Original) The deformable mirror of claim 1, wherein the rear surface is an approximately elliptical surface.
5. (Original) The deformable mirror of claim 1, wherein the diaphragm carrier comprises a lateral recess substantially parallel to the reflecting surface and adjacent to the rear surface of the diaphragm.

6. (Original) The deformable mirror of claim 1, further comprising a cooling fluid in contact with the rear surface of the diaphragm.

7. (Original) The deformable mirror of claim 6, wherein a pressure of the cooling fluid is different from a pressure on the reflecting surface, such that the shape of the reflecting surface is deformed.

8. (Original) The deformable mirror of claim 1, further comprising an actuator for pressurizing the rear side of the diaphragm.

9. (Original) The deformable mirror of claim 1, wherein the diaphragm carrier comprises a pipe socket with circular outer cross-section.

10. (Currently Amended) A method of reflecting a laser beam, the method comprising: directing the laser beam onto a deformable, reflecting surface, supported by a pressurizable diaphragm; and

variably altering a pressure within a diaphragm carrier that supports the diaphragm to aspherically deform the shape of the diaphragm and the reflecting surface, wherein the diaphragm carrier has a circular perimeter and a countersunk portion that defines a non-circular, pressurizable rear surface of the diaphragm, and wherein the rear surface is an approximately rectangular surface, an approximately oval surface, or an approximately elliptical surface.

11. (Original) The method of claim 10, wherein the rear surface is an approximately rectangular surface.

12. (Original) The method of claim 10, wherein the rear surface is an approximately oval surface.